

A NEW FERN, GONIOPHLEBIUM PRINGLEI, FROM
MEXICO.

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Aid in Cryptogamic Botany, Division of Plants.

The writer has had much pleasure in dedicating the following excellent species to its discoverer, Mr. C. G. Pringle, whose collections of Mexican plants have so long been widely and favorably known.

Goniophlebium pringlei sp. nov.

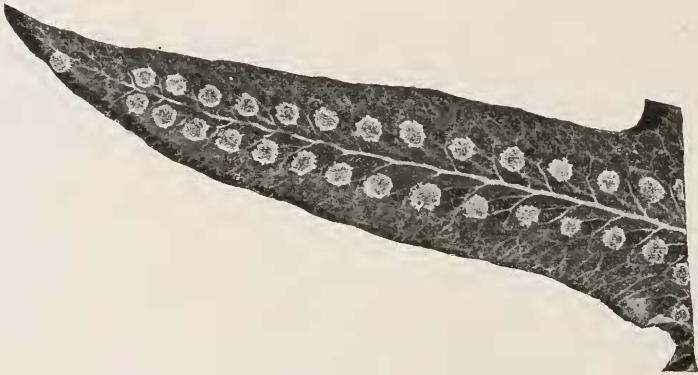
Plate XLVIII.

Rhizome creeping, very firm, flexuose, slender, about 4 mm. thick, densely clothed with appressed dirty-white lanceolate acuminate brownish-centered chaff, and with rather sparse very dark brown lanose rootlets: frond glabrous throughout, about 5 dm. long: stipe 1 dm. long, stramineous, firm, terete, polished, very slender (only 1 mm. thick): lamina ovate, 4 dm. long, about 2 dm. broad below the middle, thin membranaceo-chartaceous, very translucent, comprising 11 pairs of subopposite entire narrowly lanceolate tapering acute-pointed pinnae which decrease gradually above, giving rise to a terminal caudate division nearly equal in size to the largest pinnae: lowermost pinnae 9 cm. long by 2.3 cm. broad, subcordate and free below, fully adnate and dilated above into a foliar wing 5 mm. deep from sinus to rachis and connecting with the second pair of pinnae which with the third pair are the longest (about 10 cm.): succeeding pinnae gradually shorter, similarly dilated both above and below to form a continuous slightly broadening soriferous wing, the sinuses obtuse, rounded; venation manifest: sori, orbicular, large, about 15 pairs to the pinna, nearer the midrib than the margin; each sorus borne on the single included veinlet of the broad initial areole which extends half the distance to the margin; ultimate venation irregularly anastomose, very rarely with an included veinlet.

Type, No. 460764, in the United States National Herbarium: on trees, near Jalapa, State of Vera Cruz, Mexico, altitude 1,200 meters, C. G. Pringle, *no. 11855*, November 30, 1903. Known only from the type collection containing about 25 specimens taken for distribution.

The sheet in the Pringle herbarium at the University of Vermont differs only in its slightly greater breadth, the second and third pinnae measuring about 12 cm. long.

The species is quite distinct from known members of the group to which it belongs. The most noticeable single character is its delicate transparency, the texture resembling closely that of certain thalloid marine algae which become extremely transparent upon drying. The stipe is slight in thickness and relatively very short; the raised rachis is, except in the terminal cauda, of a pronounced old gold color, as are also the large sori; the midveins and initial venation of the pinnae and of the terminal cauda are blackish and raised.



PINNA OF GONIOPHLEBIUM PRINGLEI (NATURAL SIZE).

The accompanying text figure is a natural size illustration of one of the fifth pair of pinnae of the type frond. It is from a print obtained by placing the pinna directly upon sensitized paper and allowing the sunlight to strike through the transparent tissue, and shows perfectly the venation and the position of the orbicular sori.

Two additional sheets in the United States National Herbarium differ in having the second pair of pinnae like the first, that is, free and cordate-clasping at the base below the midvein and fully adnate above, the adnate upper portion of the first pair overlapping the clasping base of the second, there being only a very slight connecting foliar wing along the rachis. In one of these (No. 460766), moreover, this condition occurs in the case of the third pair of pinnae also, and the foliar wing becomes well developed only between the third and fourth pairs of pinnae and between succeeding pinnae. In all four sheets examined the superabundance of leafy tissue, which must have given a remarkable fluted appearance to the living fronds, is very noticeable.

EXPLANATION OF PLATE XLVIII.

From a photograph of the type specimen, no. 460764 in the United States National Herbarium. About one third natural size.